

(14) To meet the metal HAP emission limit specified in Table 1 to this subpart, you must conduct the procedures specified in paragraphs (b)(14)(i) through (v) of this section.

(i) Measure the metal HAP mass emission rate at the outlet of the control device or at the stack using Method 29 of 40 CFR part 60, appendix A-8, for each test run.

(ii) Calculate the metal HAP mass emission rate in the exhaust stream for the glass manufacturing metal HAP that are added as raw materials to the glass manufacturing formulation for each test run.

(iii) Measure and record the glass production rate (kilograms (tons) per hour of product) for each test run.

(iv) Calculate the production-based metal HAP mass emission rate (g/kg (lb/ton)) for each test run using Equation 2 of this section.

$$\text{MPM} = \frac{\text{ERM}}{P} \quad (\text{Equation 2})$$

Where:

MPM = Production-based metal HAP mass emission rate, grams of metal HAP per kilogram (pounds of metal HAP per ton) of glass produced.

ERM = Sum of the metal HAP mass emission rates for the glass manufacturing metal HAP that are added as raw materials to the glass manufacturing formulation and are measured using Method 29 during each performance test run, grams (pounds) per hour.

P = Average glass production rate for the performance test, kilograms (tons) of glass produced per hour.

(v) Calculate the 3-hour block average production-based metal HAP mass emission rate as the average of the production-based metal HAP mass emission rates for each test run.

**§63.11453 What are the initial compliance demonstration requirements for new and existing sources?**

(a) If you own or operate an affected source, you must submit a Notification of Compliance Status in accordance with §§63.9(h) and 63.11456(b).

(b) For each existing affected furnace that is subject to the emission limits specified in Table 1 to this subpart, you must demonstrate initial compliance

according to the requirements in paragraphs (b)(1) through (4) of this section.

(1) For each fabric filter that is used to meet the emission limit specified in Table 1 to this subpart, you must visually inspect the system ductwork and fabric filter unit for leaks. You must also inspect the inside of each fabric filter for structural integrity and fabric filter condition. You must record the results of the inspection and any maintenance action as required in §63.11457(a)(6).

(2) For each electrostatic precipitator (ESP) that is used to meet the emission limit specified in Table 1 to this subpart, you must verify the proper functioning of the electronic controls for corona power and rapper operation, that the corona wires are energized, and that adequate air pressure is present on the rapper manifold. You must also visually inspect the system ductwork and ESP housing unit and hopper for leaks and inspect the interior of the ESP to determine the condition and integrity of corona wires, collection plates, hopper, and air diffuser plates. You must record the results of the inspection and any maintenance action as required in §63.11457(a)(6).

(3) You must conduct each inspection specified in paragraphs (b)(1) and (2) of this section no later than 60 days after your applicable compliance date specified in §63.11450, except as specified in paragraphs (b)(3)(i) and (ii) of this section.

(i) An initial inspection of the internal components of a fabric filter is not required if an inspection has been performed within the past 12 months.

(ii) An initial inspection of the internal components of an ESP is not required if an inspection has been performed within the past 24 months.

(4) You must satisfy the applicable requirements for performance tests specified in §63.11452.

(c) For each new affected furnace that is subject to the emission limit specified in Table 1 to this subpart and is controlled with a fabric filter, you must install, operate, and maintain a bag leak detection system according to paragraphs (c)(1) through (3) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (c)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (c)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, you must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, you shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (c)(1)(vi) of this section.

(vi) Once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (c)(2) of this section.

(vii) You must install the bag leak detection sensor downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) You must develop and submit to the Administrator or delegated author-

ity for approval a site-specific monitoring plan for each bag leak detection system. You must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (c)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

(v) How the bag leak detection system output will be recorded and stored; and

(vi) Corrective action procedures as specified in paragraph (c)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) For each bag leak detection system, you must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (c)(2)(vi) of this section, you must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;

(ii) Sealing off defective bags or filter media;

(iii) Replacing defective bags or filter media or otherwise repairing the control device;

(iv) Sealing off a defective fabric filter compartment;

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or

(vi) Shutting down the process producing the PM emissions.

(d) For each new affected furnace that is subject to the emission limit specified in Table 1 to this subpart and is controlled with an ESP, you must install, operate, and maintain according to the manufacturer's specifications, one or more continuous parameter monitoring systems (CPMS) for measuring and recording the secondary voltage and secondary electrical current to each field of the ESP according to paragraphs (d)(1) through (13) of this section.

(1) The CPMS must have an accuracy of 1 percent of the secondary voltage and secondary electrical current, or better.

(2) Your CPMS must be capable of measuring the secondary voltage and secondary electrical current over a range that extends from a value that is at least 20 percent less than the lowest value that you expect your CPMS to measure, to a value that is at least 20 percent greater than the highest value that you expect your CPMS to measure.

(3) The signal conditioner, wiring, power supply, and data acquisition and recording system of your CPMS must be compatible with the output signal of the sensors used in your CPMS.

(4) The data acquisition and recording system of your CPMS must be able to record values over the entire range specified in paragraph (d)(2) of this section.

(5) The data recording system associated with your CPMS must have a resolution of one-half of the required overall accuracy of your CPMS, as specified in paragraph (d)(1) of this section, or better.

(6) Your CPMS must be equipped with an alarm system that will sound when the system detects a decrease in secondary voltage or secondary electrical current below the alarm set point established according to para-

graph (d)(7) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(7) In the initial adjustment of the CPMS, you must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(8) You must install each sensor of the CPMS in a location that provides representative measurement of the appropriate parameter over all operating conditions, taking into account the manufacturer's guidelines.

(9) You must perform an initial calibration of your CPMS based on the procedures specified in the manufacturer's owner's manual.

(10) Your CPMS must be designed to complete a minimum of one cycle of operation for each successive 15-minute period. To have a valid hour of data, you must have at least three of four equally-spaced data values (or at least 75 percent of the total number of values if you collect more than four data values per hour) for that hour (not including startup, shutdown, malfunction, or out of control periods).

(11) You must record valid data from at least 90 percent of the hours during which the affected source or process operates.

(12) You must record the results of each inspection, calibration, initial validation, and accuracy audit.

(13) At all times, you must maintain your CPMS including, but not limited to, maintaining necessary parts for routine repairs of the CPMS.

(e) For each new affected furnace that is subject to the emission limit specified in Table 1 to this subpart and is controlled by a device other than a fabric filter or an ESP, you must prepare and submit a monitoring plan to EPA or the delegated authority for approval. Each plan must contain the information in paragraphs (e)(1) through (5) of this section.

(1) A description of the device;

(2) Test results collected in accordance with §63.11452 verifying the performance of the device for reducing PM or metal HAP to the levels required by this subpart;

(3) Operation and maintenance plan for the control device (including a preventative maintenance schedule consistent with the manufacturer's instructions for routine and long-term maintenance) and continuous monitoring system;

(4) A list of operating parameters that will be monitored to maintain continuous compliance with the applicable emission limits; and

(5) Operating parameter limits based on monitoring data collected during the performance test.

**§ 63.11454 What are the monitoring requirements for new and existing sources?**

(a) For each monitoring system required by this subpart, you must install, calibrate, operate, and maintain the monitoring system according to the manufacturer's specifications and the requirements specified in paragraphs (a)(1) through (7) of this section.

(1) You must install each sensor of your monitoring system in a location that provides representative measurement of the appropriate parameter over all operating conditions, taking into account the manufacturer's guidelines.

(2) You must perform an initial calibration of your monitoring system based on the manufacturer's recommendations.

(3) You must use a monitoring system that is designed to complete a minimum of one cycle of operation for each successive 15-minute period.

(4) For each existing affected furnace, you must record the value of the monitored parameter at least every 8 hours. The value can be recorded electronically or manually.

(5) You must record the results of each inspection, calibration, monitoring system maintenance, and corrective action taken to return the monitoring system to normal operation.

(6) At all times, you must maintain your monitoring system including, but not limited to, maintaining necessary parts for routine repairs of the system.

(7) You must perform the required monitoring whenever the affected furnace meets the conditions specified in

paragraph (a)(7)(i) or (ii) of this section.

(i) The furnace is being charged with one or more of the glass manufacturing metal HAP as raw materials.

(ii) The furnace is in transition between producing glass that contains one or more of the glass metal HAP as raw materials and glass that does not contain any of the glass manufacturing metal HAP as raw materials. The transition period begins when the furnace is charged with raw materials that do not contain any of the glass manufacturing metal HAP as raw materials and ends when the furnace begins producing a saleable glass product that does not contain any of the glass manufacturing metal HAP as raw materials.

(b) For each existing furnace that is subject to the emission limit specified in Table 1 to this subpart and is controlled with an ESP, you must meet the requirements specified in paragraphs (b)(1) or (2) of this section.

(1) You must monitor the secondary voltage and secondary electrical current to each field of the ESP according to the requirements of paragraph (a) of this section, or

(2) You must submit a request for alternative monitoring, as described in paragraph (g) of this section.

(c) For each existing furnace that is subject to the emission limit specified in Table 1 to this subpart and is controlled with a fabric filter, you must meet the requirements specified in paragraphs (c)(1) or (2) of this section.

(1) You must monitor the inlet temperature to the fabric filter according to the requirements of paragraph (a) of this section, or

(2) You must submit a request for alternative monitoring, as described in paragraph (g) of this section.

(d) For each new furnace that is subject to the emission limit specified in Table 1 to this subpart and is controlled with an ESP, you must monitor the voltage and electrical current to each field of the ESP on a continuous basis using one or more CPMS according to the requirements for CPMS specified in § 63.11453(d).

(e) For each new furnace that is subject to the emission limit specified in